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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,702	09/09/2003	John G. Carter	51743	2308

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EXAMINER	
AHMED, SHAMIM	
ART UNIT	**PAPER NUMBER**
1765	

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/658,702	CARTER ET AL.	
	Examiner	Art Unit	
	Shamim Ahmed	1765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/27/05 have been fully considered but they are not persuasive. Applicants argue that Morrissey et al (US 2002/0000382) is not a proper reference for purpose of 35 USC 102(e) as 35 USC 103 (c).

2. In response, examiner states that the argument is not persuasive because 102 (e) rejection cannot be overcome by the statement of common ownership because 35 U.S.C. 103(c) applies only to prior art usable in an obviousness rejection under 35 U.S.C. 103. Subject matter that qualifies as anticipatory prior art under 35 U.S.C. 102,including 35 U.S.C. 102(e), is not affected, and may still be used to reject claims as being anticipated. See MPEP 706.02(l)(1) [R-2] and MPEP 706.02(f) [R-1].

3. Applicants also argue that Schemenaur et al and Mclaughlin,Jr. are not analogous art because Schemenaur et al dealing with micro-etch metal surfaces for printed circuit board, whereas McLaughlin, Jr. dealing with surface cleaning of aluminum.

4. In response, examiner states that the argument is not persuasive because both of them are dealing with metal surfaces comprising aluminum and any type of cleaning composition will form some degree of etching of the cleaned surfaces and therefore, both the references are with in same field of endeavor.

5. Applicants, further argues that Schemenaur et al use a micro-etch composition with molybdenum ion in combination with azole compounds and do not desire to clean aluminum surfaces as McLaughlin,Jr.

6. In response, examiner states that the argument is not persuasive because the claims do not exclude the presence of other ingredients in the claimed composition. Therefore, the rejection of the previous office action is repeated herein as below:

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1,3-4 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Morrissey et al (US 2002/0000382).

Morrissey et al teach a composition comprises persulfate, a fluorine containing acid such as fluoroboric acid (paragraph 0034 and 0035).

Morrissey et al also teach that the composition also contain boric acid for maintaining desired pH in the composition (0027).

As to claim 4, Morrissey et al teach that borate salt of sodium or potassium and the like can be used as buffering action (paragraphs 0027-0028).

As to claim 7, Morrissey et al teach that the composition also contain surfactant (0031).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1,3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schemenaur et al (6,444,140) in view of McLaughlin, Jr. (4,256,602).

Schemenaur et al disclose a micro-etching composition for metal surfaces including copper, aluminum or alloys thereof, wherein the composition comprises: sulfuric acid and an oxidizing agent such as persulfate compounds or peroxides (col.2, lines 63-67 and col. 3, lines 12-35).

Schemenaur et al teach that additives such as benzotriazoles are added to the composition for enhancing the efficiency of the composition (col.3, lines 46-52).

Schemenaur et al fails to teach the presence of fluorine containing acid and boric acid in the composition.

However, McLaughlin, Jr. teaches that unexpected results are obtained with the use of additives such as hydrofluoric acid and boric acid (fluoroborate complex) in an acid cleaning solution for aluminum cleaning by removing and dissolving aluminum fines (col.1, lines 59-68 and col.2, lines 19-22).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time of claimed invention to modify Schemenaur et al's composition with the teaching of McLaughlin, Jr. for increasing the cleaning efficiency of metal surfaces such as aluminum or aluminum alloys as taught by McLaughlin, Jr.

As to claim 7, McLaughlin, Jr. teaches that surfactants and other components may be added to the composition for enhancing the cleaning efficiency (col.2, lines 51-52).

12. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schemenaur et al (6,444,140) in view of McLaughlin, Jr. (4,256,602) as applied to claims 1,3 and 5-7 above, and further in view of Margulies et al (3,137,600).

Modified Schemenaur et al discusses above in the paragraph 11 but fail to teach that the persulfate comprises sodium or potassium monopersulfate.

However, Margulies et al teach that monopersulfates such as potassium monopersulfate is advantageous in metal dissolution composition compare to other

persulfates, wherein monopersulfate solution has higher rate of dissolution for copper (col.2, lines 32-54).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time of claimed invention to modify the modified Schemenaur et al's composition with the teaching of Margulies et al for increasing the efficiency of the composition as taught by Margulies et al.

13. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schemenaur et al (6,444,140) in view of McLaughlin, Jr. (4,256,602) and Margulies et al (3,137,600) as applied to claim 2 above, and further in view of McNeil et al (5,669,980).

Modified Schemenaur et al discusses above in the paragraph 12 but fail to teach that the fluorine containing acid is fluoroboric acid.

However, McNeil et al teach a cleaning composition for aluminum, in which source of fluoride ion is hydrofluoric acid or fluoroboric acid (col.7, lines 2-5).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time of claimed invention to combine McNeil et al's teaching into modified Schemenaur et al's composition because both the hydrofluoric acid and fluoroboric acid are functionally equivalent as taught by McNeil et al.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shamim Ahmed whose telephone number is (571) 272-1457. The examiner can normally be reached on M-Thu (7:00-5:30) Every Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine G. Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shamim Ahmed
Primary Examiner
Art Unit 1765

SA
October 16, 2005